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Atty. Dkt. No. 047182-0128

UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Anna H. DYSON et al.

Title:

CONCENTRATING TYPE SOLAR COLLECTION AND DAYLIGHTING SYSTEM WITHIN GLAZED BUILDING

**ENVELOPES** 

MAY 2 7 200

Appl. No.:

10/816,933

Filing Date: 04/05/2004

Examiner:

Unassigned

Art Unit:

Unassigned

#### INFORMATION DISCLOSURE STATEMENT **UNDER 37 CFR §1.56**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a prima facie art reference against the claims of the present application.



#### TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), within three (3) months of the filing date of the application.

#### RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Date \_

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Leon Radomsky

Attorney for Applicant

Registration No. 43,445

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> INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Date Submitted: 5/27/04

(use as many sheets as necessary) Sheet

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	Complete if Known	101.57	
Application Number	10/816,933	3	
Filing Date	4/5/04	MAY 2 4 2004	
First Named Inventor	Anna H. DYSON	UATER	,
Group Art Unit	Unassigned	S. CAND	7
Examiner Name	Unassigned	& YOUCHARK	-Z
Attorney Docket Number	047182-0128	SARDE-	

	·			U.S. PATENT DOCUMENTS	)	
	0.1	U.S. Patent Document			Date of Publication of	Pages, Columns, Lines, Where Relevant
Examiner Initials*	Cite No. <sup>1</sup>	Number	Kind Code <sup>2</sup> (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear

			·	F	DREIGN PATENT DOCUMEN	TS		
Examiner Initials*	Cite No. <sup>1</sup>	Fr Office	oreign Patent D <sup>3</sup> Number⁴	ocument Kind Code <sup>5</sup> (if known)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	A28	W0	03/105240	A1	DESSEL, Steven Van	12/18/03		Y

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
/	A1	Wilson, Mike et al., "Sunlight, Optics and Liquid Optics: The UFO Project." Low Energy Architecture Research Unit, University of North London. 2000. URL: http://www.unl.ac.uk/LEARN/port/2000/ufo-pub/doc/epic_ufo.pdf	Y
	A2	"Defying the Laws of Physics Award: You are the sunshine of my windowless underground dome home." URL: http://buddhamaitreya.org/Fiber_Optic_Lighting.htm	Y
	A3	Fraas, L.M., W.E. Daniels, and J. Muhs. "Infrared Photovoltaics for Combined Solar Lighting and Electricity for Buildings." URL: http://www.jxcrystals.com/Solar/munich2.pdf	Y
	A4	Grise, William, and Charles Patrick. "Passive Solar Lighting Using Fiber Optics." Journal of Industrial Technology. 19:1, 2002. URL: http://www.nait.org/jit/Articles/grise122002.pdf	Y
-	A5	"Passive Fiber-optic Daylighting Prototype Wins Award from NAHB and Popular Science." <i>Energy User News.</i> 2002.  URL:http://www.energyusernews.com/CDA/ArticleInformation/nwes/news_item/0,2588,77722,00.html.	Y
	A6	Cates, Michael R. "Hybrid Lighting: Illuminating Our Future." Oak Ridge National Laboratory Review. URL:http://www.ornl.gov/ORNLReview/rev29_3/text/hybrid.htm	Y
	A7	"Optical Fiber Illuminators." URL:http://www.unl.ac.uk/LEARN/port/1998/daymedia/web/marco/projects/ofi/ofi.html	Y

Examiner Signature	Date Considered	

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	Substitute for for	m 1449B	/PTO	Complete if Known		
	INFORMATION	DISCLO	SURE	Application Number	10/816,933	
	STATEMENT B	Y APPLI	CANT	Filing Date	4/5/04	
	Date Submitte	ad. E/07	10.4	First Named Inventor	Anna H. DYSON	
	Date Submitte	ea: 5/2/	704	Group Art Unit	Unassigned	
	(use as many shee	ets as ne	cessary)	Examiner Name	Unassigned	
Sheet	2	of	4	Attorney Docket Number	047182-0128	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	A8	"New Cost-Efficient Solar Concentrator PV Systems." The All-Russian Institute for the Electrification of Agriculture. URL:http://www.ademe.fr/pcrd/Partenaires/russie4.doc	Y
-	A9	Sater, Bernard L. "High Intensity Silicon Vertical Multi-Junction Solar Cells, Prepared for the Department of Energy Inventions and Innovation Program." Final Report –DOE/GO10523. January 31, 2003	·Y
	A10	Green, M. Solar Cells., Prentice-Hall, Inc. 1982	Y
	A11	"Photovoltaics – Energy for the New Milennium: The National Photovoltaics Program Plan for 2000-2004." National Center for Photovoltaics. URL:http://www.nrel.gov/ncpv/pvmenu.cgi?site=ncpv&idx-3&body=infores.html	Y
	A12	"U.S. Photovoltaic Roadmap." Prepared by Energetics, Inc., May 2001. URL:http://www.nrel.gov/ncpv pvmenu.cgi?site=ncpv&idx-3&body=pvplans.html	Y
	A13	"Utility-Scale Photovoltaic Concentrators." Natioal Center for Photovoltaics. URL: http://www.nrel.gov/ncpv/pvmenu.cgi?site=ncpv&idx-3&body=infores.html	Y
	A14	"Transparenter Sonnenschutz mit Holograpisch Opteishen Elementen (HOE) und Photovoltaik (PV)." Institut fur Licht-und Bautechnik an der Fachhochschule Koln. 1999. <u>URL:http://www.ag-solar.de/projekte/berichte/25314197.pdf</u>	Y
	A15	"PRIDE: Photovoltaic Facades of Reduced Costs Incorporating Devices with Optically Concentrating Elements." University of Ulster: Center for Sustainable Technologies. <u>URL:http://www.engi.ulst.ac.uk/CSTNEW/pride.htm</u>	Y
	A16	"Bringing air and light to the working environment." Research Focus: Promoting the Application of Research in Building and Civil Engineering. Issue 35, November, 1998.  URL:http://ice.org.uk/rtfpdf/rfnov98.pdf	Y

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Examiner Signature	Date Considered	

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<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

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	Substitute fo	r form 1449B	/PTO	Complete if Known		
	INFORMATION	ON DISCLO	SURE	Application Number	10/816,933	
	STATEMEN	T BY APPL	ICANT	Filing Date	4/5/04	
				First Named Inventor	Anna H. DYSON	
	Date Sub	mitted: 5/27	704	Group Art Unit	Unassigned	-
	(use as many s	sheets as ne	ecessary)	Examiner Name	Unassigned	
Sheet	3	of	4	Attorney Docket Number	047182-0128	

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,	A17	Fanney A. Hunter, et al "Performance and Characterization of Building Integrated Photovoltaic Panels." National Institute of Standards and Technology. Reprinted from proceedings of 29 <sup>th</sup> IEEE Photovoltaic Specialists Conference, 2002. URL:http://bfrl.nist.gov/863/bipv/documents/ieeeFNL.pdf	Y
	A18	Travers, Dean "Examples of Building Integrated PV Products." University of New South Wales, Australia. URL:http://pv.unsw.edu.au/miscpapers/BIPV/APP11.pdf	Y
	A19	"Conference Papers and Other Publications." Key Centre for Photovoltaic Engineering UNSW. URL:http://www.pv.unsw.edu.au/conf.html.	Y
	A20	"Photovoltaics." U.S. Department of Energy: Energy Efficiency and Rewnewable Energy. URL:http://www.eere.energy.gov/RE/solar_photovoltaics.html	Y
	A21	Leutz, R. and Suzuki, A., Nonimaging Fresnel Lenses: Design and Performance of Dolar Concentrators (Springer Series in Optical Sciences, No. 83), Springer Verlag, 200.	Y
	A22	Recent Progress in the Development of III-V Solar and Thermophotovoltaic Cells, F. Dimroth, et al, Compound Semiconductor 6(6) August 2000, p. 1-4	Y
	A23	Kookaburra: Solar Window Shades 02-09-2003 Wired News by Anna Dyson; http://kookaburra.typepad.com/weblog/2003/09/solar_window_sh Accessed 1/9/04	Y
,	A24	Solar Cell Manufacturers Come Back Down to Earth, Optics.org., p. 1-6 plus figures; <a href="http://optics.org/articles/feature/8/12/1/1 Accessed 1/12/04">http://optics.org/articles/feature/8/12/1/1 Accessed 1/12/04</a> ;	Y

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number. Substitute for form 1449B/PTO Complete if Known 10/816,933 INFORMATION DISCLOSURE **Application Number** Filing Date 4/5/04 STATEMENT BY APPLICANT Anna H. DYSON **First Named Inventor** Date Submitted: 5/27/04 Unassigned **Group Art Unit Examiner Name** Unassigned (use as many sheets as necessary) 047182-0128 of 4 Attorney Docket Number Sheet

	NON PATENT LITERATURE DOCUMENTS	_
Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
A25	The Technology to Explore, Rensselaer Magazine, Fall 2003; New Dimensions in Architecture, p. 1-4, <a href="http://www.rpi.edu/dept/NewsComm/Magazine/fall03/feature1-3">http://www.rpi.edu/dept/NewsComm/Magazine/fall03/feature1-3</a> . Accessed 1/9/04	Y
A26	Taking a Load Off the National Power Grid, Press Release, 8/21/03, p. 1-2, <a href="http://www.rpi.edu/web/News/press">http://www.rpi.edu/web/News/press</a> releases/2003/grid.html Accessed 1/9/04	Y
A27	Taking a Load Off the National Power Grid, New solar-powered Window System Heats, Cools, Lights and Shades Commercial Buildings, ScienceDaily News Release, pg. 1-4, <a href="http://www.scidencedaily.com/releases/2003/08/030826065552">http://www.scidencedaily.com/releases/2003/08/030826065552</a> Accessed 1/9/04	Y
A29	Abstract JP 06 174249A, Komatsu Ltd. 6/24/94	Y
A30	Abstract JP 04 280482A, OKI Electric Ind. Co. Ltd., 10/6/92	7
A31	Abstract JP 2002 081274A, Mitsubishi Estate Co., Ltd., 3/22/02	\
A32	Abstract, JP 60 260166A, FUJI et al, 12/23/85	+,
	A25 A26 A27 A29 A30	item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where publisher.  A25 The Technology to Explore, Rensselaer Magazine, Fall 2003; New Dimensions in Architecture, p. 1-4, http://www.rpi.edu/dept/NewsComm/Magazine/fall03/feature1-3. Accessed 1/9/04  A26 Taking a Load Off the National Power Grid, Press Release, 8/21/03, p. 1-2, http://www.rpi.edu/web/News/press_releases/2003/grid.html Accessed 1/9/04  A27 Taking a Load Off the National Power Grid, New solar-powered Window System Heats, Cools, Lights and Shades Commercial Buildings, ScienceDaily News Release, pg. 1-4, http://www.scidencedaily.com/releases/2003/08/030826065552 Accessed 1/9/04  A29 Abstract JP 06 174249A, Komatsu Ltd. 6/24/94  A30 Abstract JP 04 280482A, OKI Electric Ind. Co. Ltd., 10/6/92  A31 Abstract JP 2002 081274A, Mitsubishi Estate Co., Ltd., 3/22/02

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